



# Town of Raymond Water Department Water Quality Report for 2009 Distributed April 2010



## What is the source of my drinking water ?

The Raymond Water Department obtains its water from three gravel-developed wells. All three wells are located between the Cammett Recreation Area and the Lamprey River behind the town's Safety Complex. The well site and well #1 were purchased in 1978 and produces over 200 gals. per minute. Well #2 was developed in 1988 and produces over 350 gals. per minute. Well #3 was developed in 2004 and produces approximately 300 gals. per minute. The entire well field is rated for a total withdraw rate of 500 gals. per minute or 720,000 gals per day.

## How can I get involved ?

Call Denise O'Grady at the Raymond Public Works Department at (603)895-4657 with any questions, comments, or concerns. We are located at the rear of the Old Fire House, 4 Epping Street, Raymond, New Hampshire 03077 adjacent to the Town Office Building or email us at: [dogrady@raymondnh.gov](mailto:dogrady@raymondnh.gov)

## Why are contaminants in my water ?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the US Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

## Violations and Other information

The water from all three wells is treated at the water treatment plant by passage through an air stripping unit, which reduces the radon concentration, then passage through a greensand gravity filter, which reduces the concentration of iron & manganese in the water. The water is adjusted to a pH of approximately 8 by the addition of a 25% solution of sodium hydroxide. Prior to exiting the plant, chlorine is introduced to maintain disinfection residual.

## Do I need to take special precautions ?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

## Definitions:

**MCLG:** Maximum Contaminant Level Goal, or the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**MCL:** Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. They are set as close to the MCLGs as feasible using the best available treatment technology.

**AL:** Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

**TT:** Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.

**MRDLG:** Maximum residual disinfectant level goal or the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants (for water systems that use chlorine).

**MRDL:** Maximum Residual Disinfectant Level or the highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants (for water systems that use chlorine).

## Abbreviations:

**ppm:** parts per million

**ppb:** parts per billion

**ppt:** parts per trillion

**ppq:** parts per quadrillion

**pCi/L:** pico curies per liter

**NTU:** Nephelometric Turbidity Unit

**NA** – Not applicable

**nd:** not detectable at testing limits

**AL:** Action Level

**TT:** Treatment Technique

## Sample Dates:

The results for detected contaminants listed below are from the most recent monitoring done in compliance with regulations ending with the year 2009. Results prior to 2009 will include the date the sample was taken. The State of New Hampshire allows water systems to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Thus some of the data present, though representative, may be more than one year old.

## DETECTED WATER QUALITY RESULTS

Contaminant (Units)	Level Detected	MCL	MCLG	Violation YES/NO	Likely Source of Contamination	Health Effects of Contaminant
<b>Microbiological Contaminants</b>						
<b>Radioactive Contaminants</b>						
Compliance Gross Alpha (pCi/L)	0.1 ± 0.3 to 0.3 ± 0.4 (2/15/05)	15	0	No	Erosion of natural deposits	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Uranium (ug/L)	0.3 ± 0.1 (2/15/05)	30	0	No	Erosion of natural deposits	Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.
Combined Radium pCi/L	0.2 ± 0.7 to 0.4 ± 0.7 (2/16/07)	5	0	No	Erosion of natural deposits	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
<b>Inorganic Contaminants</b>						
Barium (ppm)	0.0146 (8/2/07)	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
Copper (ppm)	0.122 (90 <sup>th</sup> ) (9/2/09)	AL=1.3	1.3	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
Lead (ppb)	12.20 (90 <sup>th</sup> ) (9/2/09) Number of samples above AL of 15 were zero.	AL=15	0	No	Corrosion of household plumbing systems, erosion of natural deposits	Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

Nitrate (as Nitrogen) (ppm)	0.093 to 0.810 (8/3/09)	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.
<b>Synthetic Organic Contaminants including Pesticides and Herbicides</b>						
<b>Volatile Organic Contaminants</b>						
Haloacetic Acids (ppb)	2.8 (11/27/07)	60	N/A	No	By-product of drinking water disinfection	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
TTHM (Bromodichloro methane Bromoform Dibromomethane Chloroform) (ppb)	11.0 (11/27/07)	80	N/A	No	By-product of drinking water chlorination	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

## Description of Drinking Water Contaminants

**The sources of drinking water** (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:



**LongHill Rd Water Tower**

**Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

**Inorganic contaminants**, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming

**Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

**Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

**Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

**In order to ensure that tap water is safe to drink**, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The United States Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

**Radon:** Radon is a radioactive gas that you can't see, taste or smell. It can move up through the ground and into a home through cracks and holes in the foundation. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. It is a known human carcinogen. Breathing radon can lead to lung cancer. Drinking water containing radon may cause an increased risk of stomach cancer. Presently the EPA is reviewing a standard for radon in water.

**Lead:** If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children.

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. This water system is responsible for high quality drinking water, but cannot control the variety of materials used in your plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing cold water your tap for at least 30 seconds before using water for drinking or cooking. Do not use hot water for drinking and cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

### **Source Water Assessment Summary**

The NH Department of Environmental Services has prepared a Source Water Assessment Report for the source(s) serving this community water system, assessing the sources' vulnerability to contamination. The results of the assessment, prepared on December 3, 2004 are as follows:

Groundwater Production Well #1 received 1 high susceptibility rating, 2 medium susceptibility ratings, and 9 low susceptibility ratings.

Groundwater Production Well #2 received 1 high susceptibility rating, 2 medium susceptibility ratings, and 9 low susceptibility ratings.

Groundwater Production Well #3 received 1 high susceptibility rating, 2 medium susceptibility ratings, and 9 low susceptibility ratings.

The complete Assessment Report is available for review at the Raymond Public Works Office, 4 Epping Street, Raymond, New Hampshire 03077. For more information call Dennis G. McCarthy at 603-895-4657 or visit NH Department of Environmental Services Drinking Water & Groundwater Bureau web site at [www.des.nh.gov/dwgb](http://www.des.nh.gov/dwgb)

**Route 156 Water Tower**



**Orchard Street Water Tower**